

NPL 10699294

7/5/1 (Item 1 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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0014440831 **E.I. COMPENDEX No:** 1999514893435

**Broadband access using subcarrier multiplexing and asymmetric digital subscriber lines**

Ho, Keang-Po; Ng, Yiu Fai; Chan, Wing Bun

**Corresp. Author/Affil:** Ho, Keang-Po: Chinese Univ of Hong Kong, Shatin, Hong Kong

**Conference Title:** Proceedings of the 1998 URSI International Symposium on Signals, Systems, and Electronics, ISSSE'98

**Conference Location:** Pisa, Italy **Conference Date:** 19980929-19981002

**E.I. Conference No.:** 55500

Conference Proceedings of the International Symposium on Signals, Systems and Electronics ( Conf Proc Int Symp Signals Syst Electron ) 1998 ([d]34-39)

**Publication Date:** 19981201

**Publisher:** IEEE

**CODEN:** 00231

**Document Type:** Article; Conference Proceeding **Record Type:** Abstract

**Treatment:** G; (General review)

**Language:** English **Summary Language:** English

**Number of References:** 14

A broadband access system using subcarrier multiplexing on the optical fiber and asymmetric digital subscriber lines (ADSL) on unshielded twisted-pairs is proposed to deliver broadband services. In this hybrid-fiber/twisted-pair (HFTP) system, the digital multiplexing/ **demultiplexing** process is moved back to the central office by using subcarrier multiplexing for fiber **transmission**. Instead of installing in remote node, **ADSL** transceivers are installed inside the central office to greatly reduce the remote node complexity. The local node simply down-converts the subcarrier multiplexed **ADSL signal** to baseband **signal**, suitable to send directly into the twisted-pair. The reducing of complexity could result in a lower initial installation cost, especially for a low service penetration rate.

**Descriptors:** Digital **signal** processing; Internet **telephony**; Multiplexing; Optical communication; Optical fibers; Transceivers; World Wide Web; \*Broadband networks  
**Identifiers:** Asymmetric digital subscriber lines; Broadband access system; Fiber in the loop architecture; Hybrid fiber twisted pair system; Subcarrier multiplexing; Unshielded twisted pairs

**Classification Codes:**

741.1.2 (Fiber Optics)

716.1 (Information & Communication Theory)

716.3 (Radio Systems & Equipment)

717.1 (Optical Communication Systems)

718.1 (Telephone Systems & Equipment)

## 723.2 (Data Processing)

7/5/3 (Item 1 from file: 60)

DIALOG(R)File 60: ANTE: Abstracts in New Tech & Engineer  
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0001259309 IP Accession No: 20080899442

### **Extended range video on demand distribution system**

Kostreski, Bruce W  
, USA

**Publisher Url:** <http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=/netaht ml/PTO/search-adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=55 34912.PN.&OS=pn/5534912&RS=PN/5534912>

**Document Type:** Patent

**Record Type:** Abstract

**Language:** English

**File Segment:** ANTE: Abstracts in New Technologies and Engineering

#### **Abstract:**

In a video on demand system utilizing asymmetric digital subscriber line (ADSL) interfaces, a plurality of video channels are arranged at a central office into ADSL format and, together with a provisioning channel, are multiplexed into a composite spectrum. This composite spectrum is then transmitted to an intermediate distribution point, remote from the central office, over analog optical fiber. The composite spectrum is split and applied individually to channel selection mixers associated with the subscribers serviced by the intermediate distribution point. **Telephone signals** (POTS) are combined at the intermediate distribution point into the **ADSL signal** and transmitted with the video, to an **ADSL multiplexer/demultiplexer** at the subscriber's location. In the reverse direction, channel direction/change signals are split from the composite received from the subscriber's location at the intermediate distribution point and utilized to control channel selection. Program request information is forwarded back over the optical fiber link to the central office where it is extracted at the ADSL individual channel units for use in providing video on demand service.

**Descriptors:** Channels; Subscriber line; Multiplexing; Video on demand; Optical fibers; Asymmetry; Provisioning; Positioning; **Demultiplexers**; Mixers; Networks; Bells; Telephones; Pots

10/5/5 (Item 5 from file: 8)  
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0013244060 **E.I. COMPENDEX No:** 1994111411062  
**Multi-drop in-house ADSL distribution network**

Chow, Peter S.; Cioffi, John M.

**Corresp. Author/Affil:** Chow, Peter S.: Stanford Univ, Stanford, United States

**Conference Title:** Proceedings of the 1994 IEEE International Conference on Communications

**Conference Location:** New Orleans, LA, USA **Conference Date:** 19940501-19940505

**Sponsor:** IEEE Communications Society; IEEE New Orleans Section; Telecommunications Industry Association; United States Telephone Association

**E.I. Conference No.:** 20804

Conference Record - International Conference on Communications ( Conf Rec Int Conf Commun ) 1994 1/- (456-460)

**Publication Date:** 19940101

**Publisher:** Publ by IEEE

**CODEN:** CICCDD **ISSN:** 0536-1486 **ISBN:** 0780318269; 9780780318267

**Document Type:** Conference Paper; Conference Proceeding **Record Type:** Abstract

**Treatment:** G; (General review)

**Language:** English **Summary Language:** English

**Number of References:** 8

In this paper, we propose an all digital, multi-drop in-house Asymmetric Digital Subscriber Line (ADSL) distribution network, utilizing the existing wiring on customer premises. The proposed in-house **network** is **based** on a simple Quadrature Phase-Shift Keyed (QPSK) signaling format with frequency diversity. The network signal resides between approximately 1.5 MHz to 20 MHz of the frequency band and will not interfere with existing POTS and **ADSL signals**. The proposed in-house **ADSL** network will allow multiple users in the same household to share a single, high speed (6+ Mbps) ADSL line with only one ADSL remote transceiver unit plus a number of inexpensive service modules. This flexible, cost-effective solution will, therefore, eliminate the need for expensive internal rewiring or wireless distribution of **ADSL signal** to service multiple users in the same household.

**Descriptors:** Coaxial cables; Phase shift keying; Systems analysis; Telecommunication lines; Telecommunication services; **Telephone** lines; Transceivers; Video **signal** processing; Voice/data communication systems; \*Telecommunication networks

**Identifiers:** Discrete multitone modulation; Plain old telephone service; Quadrature phase shift keyed

**Classification Codes:**

703.1 (Electric Networks)

716.1 (Information & Communication Theory)

716.3 (Radio Systems & Equipment)  
718.1 (Telephone Systems & Equipment)  
722.3 (Data Communication, Equipment & Techniques)

10/5/6 (Item 6 from file: 8)  
DIALOG(R)File 8: Ei Compendex(R)  
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0012566711 **E.I. COMPENDEX No:** 1991090196391

**Digital subscriber line technology facilitates a graceful transition from copper to fiber**

Waring, David L.; Lechleider, Joseph W.; Hsing, To Russell

**Corresp. Author/Affil:** Waring, David L.: Bell Communications Res, USA  
IEEE Communications Magazine ( IEEE Commun Mag ) 1991 29/3 (96-104)

**Publication Date:** 19910101

**CODEN:** ICOMD **ISSN:** 0163-6804

**Item Identifier (DOI):** [10.1109/35.75533](https://doi.org/10.1109/35.75533)

**Document Type:** Article; Journal **Record Type:** Abstract

**Treatment:** A; (Applications)

**Language:** English **Summary Language:** English

**Number of References:** 26

The loop environment and the techniques that historically have been used for providing **transmission** treatment are reviewed. The **digital subscriber line (DSL)**, which applies adaptive filtering to yield significant performance and administrative advantages, is introduced. How this technology will evolve to complement the emerging fiber-**based network**, providing timely, ubiquitous wire pair transmission capabilities at basic rate, primary rate, and above is examined.

**Descriptors:** Optical Communication; Signal Filtering and Prediction; **Signal** Processing; **Telephone** Systems; \*Digital Communication Systems

**Identifiers:** Adaptive Equalization; Alternate Mark Inversion; Copper-to-Fiber Transition ; Digital Subscriber Line Technology; ISDN Basic Rate Access

**Classification Codes:**

717 (Electro-Optical Communication)  
718 (Telephone & Other Line Communications)  
723 (Computer Software, Data Handling & Applications)  
731 (Automatic Control Principles & Applications)

10/5/9 (Item 3 from file: 2)  
DIALOG(R)File 2: INSPEC  
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08004693

**Title:** The all digital loop: benefits of an integrated voice-data access network

**Author(s):** Ploumen, F.M.<sup>1</sup>; De Clerq, L.<sup>1</sup>

**Affiliation(s):**

<sup>1</sup> Corporate Res. Center, Alcatel, Antwerp, Belgium

**Book Title:** WCC 2000 - ICCT 2000. 2000 International Conference on Communication Technology Proceedings (Cat. No.00EX420)

**Inclusive Page Numbers:** 16-21 vol.1

**Publisher:** IEEE, Piscataway, NJ

**Country of Publication:** USA

**Publication Date:** 2000

**Conference Title:** Proceedings of 16th International Conference on Communication Technology (ICCT'00)

**Conference Date:** 21-25 Aug. 2000

**Conference Location:** Beijing, China

**Conference Sponsor:** Chinese Inst. Electron. China Inst. Commun. TC6 of IFIP IEEE Commun. Soc. IEE Electron. Div

**Editor(s):** Ke, G. Zhisheng, N.

**ISBN:** 0-7803-6394-9

**U.S. Copyright Clearance Center Code:** 0 7803 6394 9/2000/\$10.00

**Item Identifier (DOI):** [10.1109/ICCT.2000.889160](https://doi.org/10.1109/ICCT.2000.889160)

**Part:** vol.1

**Number of Pages:** 2 vol. 1788

**Language:** English

**Document Type:** Conference Paper (PA)

**Treatment:** Practical (P)

**Abstract:** With the evolution towards the multi-service network, voice and data, today's most important services, will be transported over a single network infrastructure. Although digital subscriber line (xDSL) systems can already transport both services simultaneously over a single twisted telephone pair, they still use separate frequency bands. There is a tendency to carry the **telephony signal** in-band, as part of the digital data stream. This paper discusses several benefits of an integrated voice- **data access network based** on xDSL. In a **DSL** -based solution carrying voice in-band, the bulky plain old telephone service (POTS) splitter that is normally required to separate voice and data becomes superfluous, resulting in higher density. An all-digital loop can use the lower part of the frequency spectrum that was reserved for POTS. Simulations have shown that the flexibility and high spectral efficiency of discrete multitone modulation (DMT) increase the capacity or reach. The lifeline service for voice is also considered. A DSL low-power mode, which only uses the elements needed to support voice service, can help achieve this goal. ( 7 refs.)

**Subfile(s):** B (Electrical & Electronic Engineering)

**Descriptors:** digital subscriber lines; integrated voice/data communication

**Identifiers:** all-digital loop; integrated voice-**data** access network; multi-service network; xDSL; **digital subscriber line**; discrete multitone modulation; DMT; capacity; reach; low-power mode; voice service

**Classification Codes:** B6220B (Subscriber loops)

**INSPEC Update Issue:** 2001-031  
**Copyright:** 2001, IEE

10/5/10 (Item 4 from file: 2)  
DIALOG(R)File 2: INSPEC  
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07876182

**Title:** VXI and the art of telecom repair

**Author(s):** Helfrich, D.<sup>1</sup>

**Affiliation(s):**

<sup>1</sup> Verizon Logistics ERS, Irving, TX, USA

**Journal:** EE Evaluation Engineering , vol.40 , no.2 , pp.103-4

**Publisher:** Nelson Publishing

**Country of Publication:** USA

**Publication Date:** Feb. 2001

**ISSN:** 0149-0370

**ISSN Type:** print

**SICI:** 0149-0370(200102)40:2L.103:TR;1-2

**CODEN:** EEVEFQ

**Language:** English

**Document Type:** Journal Paper (JP)

**Treatment:** Practical (P)

**Abstract:** This article details experiences at Verizon which show how a VXI-based platform can improve testing capabilities and decrease costs of line-card repairs in telecommunications networks. The third-generation test platform used is a VXI-based functional ATE platform, the GenRad Geneva, which is tailored for POTS line-card and telecom testing. The implementation of the VXI-based Geneva supported the requirements for telephony's high level of test comprehensiveness while simultaneously reducing the costs of ownership and labor within POTS line-card repair operations. In addition, Verizon presently is enhancing its VXI-based equipment to support testing and repair of **digital subscriber line (DSL)** and other emerging **telephony** and **data** technologies. ( 0 refs.)

**Subfile(s):** B (Electrical & Electronic Engineering); E (Mechanical & Production Engineering)

**Descriptors:** automatic test equipment; maintenance engineering; peripheral interfaces; telecommunication equipment testing; telephone equipment; telephone lines; telephone networks

**Identifiers:** VXI; telecom repair; VXI-based platform; testing capabilities; line-card repair costs; telecommunications **networks**; test platform; VXI-based functional ATE platform; GenRad Geneva; POTS line-card testing; telecom testing; VXI-based Geneva; test comprehensiveness; telephony; cost of ownership; labor costs; POTS line-card repair operations ; VXI-based equipment; testing; repair; **digital subscriber line**; **DSL**; **data** technologies; **telephony** technologies

**Classification Codes:** B6240 (Transmission line links and equipment); B7210A (Automatic test systems); B6220B (Subscriber loops); B6210D (Telephony); E1020 (Maintenance and reliability)

**International Patent Classification:**

H04B-0003/00 (Line transmission systems)

**INSPEC Update Issue:** 2001-012

**Copyright:** 2001, IEE

10/5/11 (Item 5 from file: 2)

DIALOG(R)File 2: INSPEC

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07646074

**Title:** Examination of copper twisted pairs to guarantee service quality for digital subscriber loops

**Author(s):** Provini, E.

**Journal:** Elettronica Oggi , no.290 , pp.196-204

**Publisher:** Gruppo Editoriale Jackson

**Country of Publication:** Italy

**Publication Date:** May 2000

**ISSN:** 0391-6391

**ISSN Type:** print

**SICI:** 0391-6391(200005)290L.196:ECTP;1-R

**CODEN:** ELOGDA

**Language:** Italian

**Document Type:** Journal Paper (JP)

**Treatment:** Experimental (X)

**Abstract:** Refers to the abandoned [Italian] SOCRATES project and the renewed emphasis on 'the last mile' of copper conductor in telephone networks. Outlines the requirements for successful **ADSL transmission** and the use of an exchange-based **digital subscriber loop** access multiplexer for test purposes. Illustrates the results from time domain reflectometer tests in a practical case. Describes three commercially available cable/circuit test devices. ( 0 refs.)

**Subfile(s):** B (Electrical & Electronic Engineering)

**Descriptors:** copper; digital subscriber lines; subcarrier multiplexing; telecommunication equipment testing; telephone exchanges; time-domain reflectometry; twisted pair cables

**Identifiers:** copper twisted pairs; service quality; digital subscriber loops; Italian project; SOCRATES project; **telephone networks**; **ADSL transmission**; exchange-based multiplexer; time domain reflectometer; cable/circuit test devices; Cu

**Classification Codes:** B6220B (Subscriber loops); B6230D (Other telephone exchanges); B6240Z (Other transmission line links); B2160 (Wires and cables)

**International Patent Classification:**

H01B-0007/00 (Insulated conductors or cables characterised by their form)

H01B-0011/02 (Cables with twisted pairs or quads)  
H04B-0003/00 ( Line transmission systems)  
H04M-0003/00 (Automatic or semi-automatic exchanges)

**Chemical Indexing:**

Cu/el

**INSPEC Update Issue:** 2000-028

**Copyright:** 2000, IEE

10/5/12 (Item 6 from file: 2)  
DIALOG(R)File 2: INSPEC  
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06325055

**Title:** Video on phone lines: Technology and applications

**Author(s):** Hsing, T.R.<sup>1</sup>

**Affiliation(s):**

<sup>1</sup> Bell Commun. Res., Bellcore, Morristown, NJ, USA

**Journal:** Proceedings of the SPIE - The International Society for Optical Engineering ,  
vol.2668 , pp.2

**Publisher:** SPIE-Int. Soc. Opt. Eng.

**Country of Publication:** USA

**Publication Date:** 1996

**Conference Title:** Digital Video Compression: Algorithms and Technologies 1996

**Conference Date:** 31 Jan.-2 Feb. 1996

**Conference Location:** San Jose, CA, USA

**Conference Sponsor:** SPIE Soc. Imaging Sci. & Technol

**ISSN:** 0277-786X

**ISSN Type:** print

**SICI:** 0277-786X(1996)2668L:2:VPLT;1-7

**CODEN:** PSISDG

**U.S. Copyright Clearance Center Code:** 0 8194 2042 5/96/\$6.00

**Language:** English

**Document Type:** Conference Paper in Journal (PA)

**Treatment:** General or Review (G)

**Abstract:** Summary form only given. Recent advances in communications signal processing and VLSI technology are fostering tremendous interest in transmitting high-speed digital **data** over ordinary **telephone** lines at bit rates substantially above the ISDN basic access rate (144 Kbit/s). Two new technologies, high-bit-rate digital subscriber lines ( **HDSL** ) and asymmetric digital subscriber lines ( **ADSL** ) promise **transmission** over most of the embedded loop plant at 1.544 Mbit/s and beyond. Stimulated by these research promises and rapid advances on video coding techniques and the standards activity, information networks around the globe are now exploring possible business opportunities of offering quality video services through this high-speed digital transport capability in the copper loop plant. Visual communications for



residential customers have become more feasible than ever both technically and economically. In this paper, the up-to-date research and development status of HDSL and ADSL, and the newest effort on very high-speed digital subscriber lines (VHDSL) technology (>10 Mbit/s) will be described and discussed. The current status of the standards recommendation H.261 video codec for audiovisual services at 64 kbit/s and the ISO JPEG/MPEG standard activity will also be briefly reported. The video results of video communications from 1.544 Mbit/s to 6 Mbit/s transmission rates will be demonstrated. It is anticipated that this highspeed digital subscriber line technology and its video services could provide an interim option for future fiber-based broadband networks. ( 0 refs.)

**Subfile(s):** B (Electrical & Electronic Engineering)

**Descriptors:** digital communication; information networks; ISO standards; subscriber loops; telecommunication services; telecommunication standards; video codecs; video coding; visual communication

**Identifiers:** high-speed digital data; ordinary telephone lines; high-bit-rate digital subscriber lines; HDSL; asymmetric digital subscriber lines; ADSL; embedded loop plant; video coding; standards activity; business opportunities; residential customers; very high-speed digital subscriber lines; VHDSL; H.261 video codec; audiovisual services; ISO JPEG/MPEG standard activity; 1.544 to 6 Mbit/s; 64 kbit/s

**Classification Codes:** B6220B (Subscriber loops); B6220M (Codecs, coders and decoders); B6210 (Telecommunication applications)

**Numerical Indexing:** bit rate: 1.544E+06 to 6.0E+06 bit/s; bit rate: 6.4E+04 bit/s

**INSPEC Update Issue:** 1996-029

**Copyright:** 1996, IEE

10/5/13 (Item 7 from file: 2)

DIALOG(R)File 2: INSPEC

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06157717

**Title:** Coded 64-CAP ADSL in an impulse-noise environment-modeling of impulse noise and first simulation results

**Author(s):** Henkel, W.<sup>1</sup>; Kessler, T.<sup>1</sup>; Chung, H.Y.

**Affiliation(s):**

<sup>1</sup> Res. Center, Deutsche Telekom, Darmstadt, Germany

**Journal:** IEEE Journal on Selected Areas in Communications , vol.13 , no.9 , pp.1611-21

**Publisher:** IEEE

**Country of Publication:** USA

**Publication Date:** Dec. 1995

**ISSN:** 0733-8716

**ISSN Type:** print

**SICI:** 0733-8716(199512)13:9L:1611:CAIN;1-U

**CODEN:** ISACEM

**U.S. Copyright Clearance Center Code:** 0733-8716/95/\$04.00

**Item Identifier (DOI):** [10.1109/49.475534](https://doi.org/10.1109/49.475534)

**Language:** English

**Document Type:** Journal Paper (JP)

**Treatment:** Theoretical or Mathematical (T)

**Abstract:** This paper presents the performance of various coding schemes for the asymmetrical digital subscriber line (ADSL) in an impulse-noise environment. Impulse noise is considered to be one of the most damaging impairments in the **ADSL**, in which compressed video **signals** are delivered to residential customers. The impulse noise used in this study was measured and collected in German telephone **networks**. **Based** on this measurement and the corresponding statistical modeling, a simulation model for impulse noise is proposed and its properties are outlined. The coding schemes considered here utilize burst-error correcting Reed-Solomon codes and/or random error correcting trellis codes as well as symbol interleaving between the two codes. It has been found through computer simulations that a proper concatenation of the two codes could increase the immunity against impulse noise compared to an uncoded scheme. Specifically, a concatenated code, using a 2-dimensional 8-state trellis code and a 4-error-correcting Reed-Solomon code with an interleaving depth of 18 symbols, was able to eliminate all the errors caused by the impulse noise used in the study. It has also been found that the trellis codes are not very effective against impulse noise, unless they are used in conjunction with Reed-Solomon codes and a proper symbol interleaving. Performance results of other coding configurations using Reed-Solomon codes with different error-correcting capabilities are also presented. In addition, we also show the performance results when simple array codes are used instead of the Reed-Solomon codes. ( 25 refs.)

**Subfile(s):** B (Electrical & Electronic Engineering)

**Descriptors:** amplitude modulation; concatenated codes; error correction codes; interleaved codes; noise; phase modulation; Reed-Solomon codes; subscriber loops; trellis coded modulation

**Identifiers:** coded 64-CAP ADSL; impulse-noise environment; burst-error correcting Reed-Solomon codes; 2-dimensional 8-state trellis code; performance; coding schemes; compressed video **signals**; residential customers; German **telephone networks**; statistical modeling; random error correcting trellis codes; symbol interleaving; computer simulations; concatenated code ; 4-error-correcting Reed-Solomon code; array codes

**Classification Codes:** B6220B (Subscriber loops); B6120B (Codes); B6120 (Modulation and coding methods)

**International Patent Classification:**

H03M (Coding, decoding or code conversion, in general)

H03M-0013/00 ( Coding, decoding or code conversion, for error detection or error correction; Coding theory basic assumptions; Coding bounds; Error probability evaluation methods; Channel models; Simulation or testing of codes)

**INSPEC Update Issue:** 1996-002

**Copyright:** 1996, IEE

10/5/16 (Item 2 from file: 95)  
DIALOG(R)File 95: TEME-Technology & Management  
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00866189 I95022755309

**Video on phone lines: technology and applications**

( Video ueber Telephonleitungen: Technologie und Anwendungen )

Lin, DW; Chen, C-T; Hsing, TR

Nat. Chiao Tung Univ., Taiwan, China

Proceedings of the IEEE, v83, n2, pp175-193 , 1995

**Document type:** journal article **Language:** English

**Record type:** Abstract

**ISSN:** 0018-9219

**Abstract:**

This paper reviews the telephone loop plant characteristics, current DSL (digital subscriber line) technologies, recent efforts in video coding standards, and the interrelationship between DSL technologies and visual communications over subscriber lines. In overview of the loop plant characteristics we examine its physical makeup and transmission properties, where for the latter we discuss frequency and time responses of wire-pair lines and the impairments of echo, crosstalk, impulse noise, and radio frequency interference. We trace the historical development of various **DSL** technologies and comment on possible future evolution. **Transmission** technologies used in the ISDN basic-access **DSL**, the high bit-rate DSL, and the asymmetric DSL are portrayed. And the issue of spectrum compatibility among different transmission systems is explained. Several important video coding standards are briefly described, including ITU-T's H.261 and ISO's JPEG and MPEG series, which are either completed or emerging. The synergistic relationship between these standards and the DSL technologies is elucidated. As a result, DSL technologies provide the potential of delivering certain broadband services well in advance of direct fiber access for telephone subscribers.

**Descriptors:** ECHOES; SUBSCRIBER S LINES; **TELEPHONE LINES**; VIDEO **TRANSMISSION**; VIDEO TECHNIQUE; TELEVISION **TELEPHONES**; DISTURB **SIGNAL**; INTEGRATED SERVICES DIGITAL NETWORKS; CODING; STANDARDISATION; INTERNATIONAL STANDARD ORGANIZATION; DIRECT ACCESS; DATA SIGNALLING RATE; **FREQUENCY DEPENDENCE**; CROSSTALK; SUBSCRIBER LOOPS; INTERNATIONAL STANDARDS; TELECOMMUNICATION STANDARDS; VIDEO CODING

**Identifiers:** TRANSMISSION SYSTEMS; TWISTED PAIR CABLES; TELEPHONE LOOP PLANT; ASYMMETRIC DSL; **DIGITAL SUBSCRIBER LINE**; VIDEO CODING STANDARDS; VISUAL COMMUNICATIONS; SUBSCRIBER LINES; **TRANSMISSION** PROPERTIES; TIME RESPONSE; WIRE PAIR LINES; IMPULSE NOISE; RADIO

FREQUENCY INTERFERENCE ; SPECTRUM COMPATIBILITY; HIGH BIT RATE  
DSL; ISDN BASIC ACCESS DSL; JPEG; MPEG; Videouebertragung; Telephonleitung

16/5/1 (Item 1 from file: 148)  
DIALOG(R)File 148: Gale Group Trade & Industry DB  
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11628772    **Supplier Number:** 58398141 (USE FORMAT 7 OR 9 FOR FULL TEXT )  
**Microfilter design promises peaceful coexistence between ADSL and the  
voiceband.(Technology Information)**

Sun, Ting  
EDN , 44 , 25 , 55  
Dec 9 , 1999  
ISSN: 0012-7515  
**Language:** English  
**Record Type:** Fulltext  
**Word Count:** 3468    **Line Count:** 00289  
**Industry Codes/Names:** BUSN Any type of business; ENG Engineering and  
Manufacturing  
**Descriptors:** Digital Subscriber Line--Usage  
**Product/Industry Names:** 3661257 (LAN/WAN Adapters)  
**NAICS Codes:** 33421 Telephone Apparatus Manufacturing  
**File Segment:** TI File 148

16/5/2 (Item 1 from file: 15)  
DIALOG(R)File 15: ABI/Inform(R)  
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01914712            05-65704  
                    **\*\*USE FORMAT 7 OR 9 FOR FULL TEXT\*\***  
**DSLAMs: An alternative to rewiring**

Llana, Andres Jr  
Telecommunications (Americas Edition) v33n10 pp: 92  
Oct 1999  
**CODEN:** TLCOAY  
**ISSN:** 0278-4831    **Journal Code:** TEC  
**Document Type:** Journal article    **Language:** English    **Length:** 1 Pages  
**Word Count:** 826

**Abstract:**

Today, ISPs, hardware vendors and value-added resellers are offering digital subscriber line (DSL) solutions to institutions and multitenant building owners. DSL is designed to support high-volume data traffic over existing copper telephone lines. ISPs have deployed DSL access multiplexers as concentrators in office or multitenant buildings as an alternative to dedicated central office lines.

**Geographic Names:** US

**Descriptors:** Internet access; Digital subscriber line; Multiplexers

**Classification Codes:** 9190 (CN=United States); 5250 (CN=Telecommunications systems)

16/5/3 (Item 1 from file: 613)

DIALOG(R)File 613: PR Newswire

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00519682 20010221LAW024 **(USE FORMAT 7 FOR FULLTEXT)**

**High-Speed Internet Bridge for HomePNA Phoneline Networks**

PR Newswire

Wednesday , February 21, 2001 09:01 EST

**Journal Code:** PR **Language:** ENGLISH **Record Type:** FULLTEXT **Document**

**Type:** NEWSWIRE

**Word Count:** 601

**Lead Paragraph:**

IRVINE, Calif., Feb. 21 /PRNewswire/

- D-Link, the leading Designer,

Developer and Manufacturer of Networking, Data Communications and Digital Electronic Technologies for the Digital Home, Small to Medium Business (SMB)

and Workgroup to Enterprise environments, today launched it's DHN-1000 HomePNA

Phoneline to Ethernet Bridge that connects a Home DSL/Cable Modem to an HPNA

home phoneline network. The DHN-1000 strictly complies with the latest 10Mb

HomePNA 2.0 standards, as well as, the Ethernet IEEE 802.3 specifications.

The Bridge creates a seamless connection between Ethernet media connected to a

DSL/Cable Modem or a router and a HomePNA network.

The DHN-1000 gives home Cable/DSL subscribers the ability to connect

their

Broadband Internet access to multiple computers while using their pre-existing telephone wires. The DHN-1000 has a single NWay Auto Sensing 10/100 RJ-45 port for connecting standard Category 5 Ethernet cabling and a single RJ-11 port for connecting a normal telephone line to a HomePNA device. Once connected, the bridge uses rate adaptive technology that senses and negotiates the highest possible speed.

**Company Names:** D-Link; D LINK; ELECTRONIC TECHNOLOGIES; HARDWARE  
**Product Names:** TELECOMMUNICATIONS; COMMUNICATIONS; NEW PRODUCT DEVELOPMENT; MARKETING; CORPORATE; INTERNET; MODEMS; NETWORKS; TELEPHONES; COMPUTERS; COMPUTER HARDWARE; COMPUTER PERIPHERALS

**Event Names:** NEW PRODUCT DEVELOPMENT; PRODUCT LAUNCHES; MANUFACTURING AND PRODUCTION; TECHNOLOGY DEVELOPMENT

16/5/4 (Item 1 from file: 16)  
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#### **AMERICAN COMPANIES IN JAPAN.**

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**Product Names:** \*2800000 (Chemicals & Allied Products); 3573000 (Computers & Peripherals); 2834000 (Pharmaceutical Preparations); 1500000 (Construction); 6500000 (Real estate); 2910000 (Petroleum); 6000000 (Financial Services); 2500000 (Furniture & Fixtures); 3500000 (Machinery ex Electric); 3674000 (Semiconductor Devices); 3849900 (Medical Equipment NEC); 7372000 (Computer Software); 3661000 (Telecommunication Systems); 2299000 (Textiles NEC); 3700000 (Transport Equipment)

**Industry Names:** BUS (Business, General); BUSN (Any type of business); INTL (Business, International )

**NAICS Codes:** 325 (Chemical Manufacturing); 334111 (Electronic Computer Manufacturing); 325412 (Pharmaceutical Preparation Manufacturing); 23 (Construction); 53 (Real Estate and Rental and Leasing); 3241 (Petroleum and Coal Products)

Manufacturing); 52 (Finance and Insurance); 337 (Furniture and Related Product Manufacturing); 3336 (Engine, Turbine, and Power Transmission Equipment Manufacturing); 334413 (Semiconductor and Related Device Manufacturing); 33911 (Medical Equipment and Supplies Manufacturing); 51121 (Software Publishers); 3342 (Communications Equipment Manufacturing ); 314999 (All Other Miscellaneous Textile Product Mills); 336 ( Transportation Equipment Manufacturing )

**Special Features:** LOB; INDUSTRY